

1AP20 Rec'd PCT/PTO 19 MAY 2006

What is claimed is:

1. A device for determining the required length of a middle ear prosthesis,  
having a disk-shaped base part to which prosthesis mockups of different lengths  
5 are fastened, which, after being detached from the base part, can be inserted by  
means of an applicator into the middle ear of a patient during an operation for  
length determination purposes,  
wherein the base part is provided with accessories for measuring and/or shaping  
the middle ear prosthesis to be inserted and the accessories include one or more  
10 recesses provided on the top and/or bottom side of the disk-shaped base part,  
which have an inner diameter that corresponds to the outer diameter of a head  
plate of the middle ear prosthesis to be inserted.
2. The device as recited in claim 1,  
15 wherein under each recess, a cavity is provided that extends into the base part  
and serves in particular to accommodate a bell, which is mounted under the  
head plate of the middle ear prosthesis and is used to attach the middle ear  
prosthesis to the stapes of the middle ear, or serves to accommodate a strut,  
which is mounted under the head plate of the middle ear prosthesis and is used  
20 to support the middle ear prosthesis on the stapedial footplate of the middle ear.
3. The device as recited in claim 1,  
wherein the contour of the inner diameter of the recesses partially corresponds  
to the outer contour of the head plate of the middle ear prosthesis but in at least  
25 one section, is widened radially outward in comparison to the maximum outer  
diameter of the head plate.
4. The device as recited in claim 1,  
wherein the base part is provided with a number of recesses preferably  
30 distributed over the circumference of the base part, which correspond to the

outer diameters of head plates of middle ear prostheses and are of different depths.

5. The device as recited in claim 4,

5 wherein the base part is provided with a mark or label next to each recess, which correlates to the respective depth of the corresponding recess and length of the head plate that can be accommodated therein and/or to the size of the inner diameter of the corresponding recess and outer diameter of the head plate and/or to the shape of the recess and head plate.

10

6. The device as recited in claim 1,

wherein the accessories include at least one conical protrusion with a preferably rounded tip that protrudes from one side of the base part, is preferably situated in a hollow, and is used to widen the inner diameter of a bell, which is mounted  
15 under the head plate of the middle ear prosthesis and is used to attach the middle ear prosthesis to the stapes of the middle ear.

7. The device as recited in claim 6,

wherein the conical protrusion is situated on the same side of the disk-shaped  
20 base part as the recess(es) for accommodating the head plate of a middle ear prosthesis.

8. The device as recited in claim 1,

wherein the accessories include at least one, preferably several hollows in the  
25 base part, which are designed for accommodating and possibly measuring and/or shaping a cartilage or fascia disk that serves as an insert between the middle ear prosthesis and the eardrum in order to mechanically protect the latter.

9. The device as recited in claim 8,

wherein the hollows for accommodating cartilage or fascia disks have a round or oval contour.

10. The device as recited in claim 8,  
5 wherein the base part is provided with a number of hollows with different sized inner diameters and/or different depths.

11. The device as recited in claim 1,  
wherein the accessories include at least one essentially flat preparation area on  
10 at least one side of the disk-shaped base part.

12. The device as recited in claim 11,  
wherein at least one location of the preparation area is provided with a length  
scale on the surface of the base part, preferably calibrated in millimeters.

15

13. The device as recited in claim 8,  
wherein the accessories include at least one essentially flat preparation area on  
at least one side of the disk-shaped base part and the hollows for  
accommodating cartilage or fascia disks are situated in the preparation area.

20

14. The device as recited in claim 8,  
wherein the recesses for accommodating the head plate of a middle ear  
prosthesis on the one hand and the preparation area and possibly one or more  
hollows for accommodating cartilage or fascia disks on the other hand are  
25 situated on two different, preferably opposing, sides of the disk-shaped base  
part.

15. The device as recited in claim 1,  
wherein the prosthesis mockups are attached to bridge pieces and distributed  
30 like satellites around the outer circumference of the disk-shaped base part.

16. The device as recited in claim 15,  
wherein protective projections, in particular rod-shaped ones, situated between  
each pair of prosthesis mockups are distributed over the circumference of the  
5 disk-shaped base part and protrude beyond the prosthesis mockups in the radial  
direction.

17. The device as recited in claim 16,  
wherein the disk-shaped base part has a polygonal, in particular hexagonal or  
10 octagonal, outer circumference and the protective projections protrude outward  
in the radial direction from the vertices of the base part.

18. The device as recited in claim 1,  
wherein the prosthesis mockups are of different sizes, in particular different  
15 lengths.

19. The device as recited in claim 18,  
wherein the recesses are provided, preferably distributed over the circumference  
of the base part, which correspond to the outer diameters of head plates of  
20 middle ear prostheses and are of different respective depths; the prosthesis  
mockups are situated on the outer circumference of the base part, each in the  
radial vicinity of a recess for accommodating the head plate of a middle ear  
prosthesis; and the size of the recess corresponds to the size of the prosthesis  
mockup respectively adjacent to it.  
25

20. The device as recited in claim 15,  
wherein the base part, the bridge pieces, and the prosthesis mockups are  
injection molded out of plastic and are preferably integrally joined to one another.

21. A device for determining the required length of a middle ear prosthesis, having a disk-shaped base part to which prosthesis mockups of different lengths are fastened, which, after being detached from the base part, can be inserted by means of an applicator into the middle ear of a patient during an operation for length determination purposes,

wherein the base part is provided with accessories for measuring and/or shaping the middle ear prosthesis to be inserted and the accessories include at least one conical protrusion with a preferably rounded tip that protrudes from one side of the base part, is preferably situated in a hollow, and is used to widen the inner diameter of a bell, which is mounted under the head plate of the middle ear prosthesis and is used to attach the middle ear prosthesis to the stapes of the middle ear.

22. A device for determining the required length of a middle ear prosthesis, having a disk-shaped base part to which prosthesis mockups of different lengths are fastened, which, after being detached from the base part, can be inserted by means of an applicator into the middle ear of a patient during an operation for length determination purposes,

wherein the base part is provided with accessories for measuring and/or shaping the middle ear prosthesis to be inserted and the accessories include at least one, preferably several hollows in the base part, which are designed for accommodating and possibly measuring and/or shaping a cartilage or fascia disk that serves as an insert between the middle ear prosthesis and the eardrum in order to mechanically protect the latter.